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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/532,758	04/27/2005	Yukihito Ichikawa	123672	9307
25944 7590 04/28/2009 OLIFF & BERRIDGE, PLC P.O. BOX 320850 ALEXANDRIA, VA 22320-4850				
EXAMINER				
BALDWIN, GORDON				
ART UNIT		PAPER NUMBER		
1794				
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04/28/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/532,758

**Applicant(s)**

ICHIKAWA ET AL.

**Examiner**

GORDON R. BALDWIN

**Art Unit**

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 January 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 19-26 is/are pending in the application.
- 4a) Of the above claim(s) 27-38 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 19-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S508)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

**Claims 19, 21-23 and 26 are rejected under 35 U.S.C. 102(a) as being anticipated by Suwabe (Japanese Pub. No. 2004-175654).**

**Considering Claim 19**, Suwabe discloses a honeycomb structure with a plurality of cells partitioned in a honeycomb shape and an external wall section that is applied to the exterior of the honeycomb structure. (Abstract (Solution), Drawings 1, 3, 7 and 8) This filling (16) that makes up the external wall and forms voids (22) between the outer wall (16) and the honeycomb partition walls (4). (Drawing 7 and 8)

**Considering claim 21**, Suwabe discloses that the honeycomb structure and the coating material that makes up the outer wall (16) can be made of cordierite. (Para. 11)

**Considering claims 23 and 26**, Suwabe discloses that the ceramic honeycomb structure is to be used as a catalyst support for emission purification and particle filtration of diesel engines. (Para. 1)

**Considering claim 22**, Suwabe discloses an interface between the outer wall part and the honeycomb structural part in drawing 8 between numbers 56 and 57.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

**Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Suwabe (Japanese Pub. No. 2004-175654).**

**Considering claim 20**, Suwabe does disclose an interface between the outer wall part and the honeycomb structural part in drawing 8 between numbers 56 and 57. However, Suwabe does not disclose a contact ratio of the outer wall part and the honeycomb structural part being 0.9 or less. However, Suwabe does disclose that is known to adjust the size of the voids (22) between the members and the concave making up the outer wall. (Para. 14 and Drawing 8) Suwabe discloses that adjusting this adhesion area between the outer wall portion (coating (16)) and the septum (outer partition wall of the honeycomb structure) can reduce the residual stress produced according to the coefficient-of-thermal-expansion difference and reduces the chance of crack generation. (Para. 14)

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to adjust the size of the void (22) between the honeycomb structure and the outer wall for the intended application, since it has been held that

discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). MPEP 2144.05 (II) (B) The result effective variable is considered to be the adjusting of the adhesion area between the outer wall portion and the septum (outer partition wall of the honeycomb structure) to reduce the residual stress produced according to the coefficient-of-thermal-expansion difference and reduces the chance of crack generation. (Para. 14)

**Claims 24 and 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Suwabe (Japanese Pub. No. 2004-175654) in view of Rao (U.S.Pat. No. 6,428,755).**

**Considering claims 24 and 25**, Suwabe discloses the claim invention, but does not disclose the use of plugging members nor a catalyst specifically being carried in the cell or on the partition walls. However, Rao discloses that it is known to have a honeycomb structure (catalyst support structure 32) that is plugged (44) in alternate channels to facilitate the exhaust gases to pass through the partition walls (46), which allowed the exhaust to interact with the deposited catalyst(48) deposited in channels (34 and 36). (Col. 2 lines 62-69 and Col. 3 lines 1-35) It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine the honeycomb structure of Suwabe with the plugged and catalyst covered honeycomb structure of Rao because exposure to such a catalyst cover structure promotes the oxidation of the

hydrocarbons and carbon monoxide byproducts of the exhaust gasses. (Rao; Col. 3 lines 27-34)

### ***Response to Arguments***

Applicant's arguments, filed 1/23/2009, with respect to the rejection(s) of claim(s) 19-26 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Suwabe (Japanese Pub. No. 2004-175654) and Rao (U.S.Pat. No. 6,428,755).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GORDON R. BALDWIN whose telephone number is (571)272-5166. The examiner can normally be reached on M-F 7:45-5:15.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer McNeil can be reached on 571-272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

GRB

/Gordon R Baldwin/  
Examiner, Art Unit 1794